

Challenge 3 - Customer Insights



INTRODUCTION

I am a Customer Insights Analyst for 'The General Store', to analyze the following tables to find out crucial information about your customers to provide to your marketing team?

TABLES

Here are the tables I will be using for analysis

customers

customer_id	first_shop	age	rewards	can_email
1	2022-03-20	23	yes	no
2	2022-03-25	26	no	no
3	2022-04-06	32	no	no
4	2022-04-13	25	yes	yes
5	2022-04-22	49	yes	yes
6	2022-06-18	28	yes	no
7	2022-06-30	36	no	no
8	2022-07-04	37	yes	yes

orders

order_id	customer_id	date_shop	sales_channel	country_id
1	1	2023-01-16	retail	1
2	4	2023-01-20	retail	1
3	2	2023-01-25	retail	2
4	3	2023-01-25	online	1
5	1	2023-01-28	retail	3
6	5	2023-02-02	online	1
7	6	2023-02-05	retail	1
8	3	2023-02-11	online	3

baskets

order_id	product_id
1	1
1	2
1	5
2	4
3	3
4	2
4	1
5	3
5	5
6	4
6	3
6	1
7	2
7	1
8	3
8	3

products

product_id	category	price
1	food	5.99
2	sports	12.49
3	vitamins	6.99
4	food	0.89
5	vitamins	15.99

country

country_id	country_name	head_office
1	UK	London
2	USA	New York
3	China	Beijing

FOLLOWING ARE THE BUSINESS ANALYSIS DONE TO SHOWCASE THE MARKETING TEAM

Worksheet

Query Builder

9

10 Q1. What are the names of all the countries in the country table?

11

12 `SELECT COUNTRY_NAME FROM COUNTRY;`

13

Script Output x

Query Result x

SQL | All Rows Fetched: 3 in 0.005 seconds

	COUNTRY_NAME
1	UK
2	USA
3	China

Worksheet

Query Builder

13

14 Q2. What is the total number of customers in the customers table?

15 `SELECT COUNT(*) FROM CUSTOMERS;`

16

Script Output x

Query Result x

SQL | All Rows Fetched: 1 in 0.009 seconds

	COUNT(*)
1	8

Worksheet

Query Builder

16

17 3. What is the average age of customers who can receive marketing emails (can_email is set to 'yes')?

18

19 `SELECT AVG(AGE) AS AVG_AGE FROM CUSTOMERS WHERE CAN_EMAIL = 'yes';`

20

Script Output x

Query Result x

SQL | All Rows Fetched: 1 in 0.003 seconds

	AVG_AGE
1	37

Worksheet

Query Builder

21

Q4. How many orders were made by customers aged 30 or older?

22

23

24

25

26

27

Script Output

x

Query Result

x

SQL

| All Rows Fetched: 1 in 0.011 seconds

	ORDER_COUNT
1	3

Worksheet

Query Builder

27

Q5. What is the total revenue generated by each product category?

28

29

30

31

Script Output

x

Query Result

x

SQL

| All Rows Fetched: 3 in 0.106 seconds

	CATEGORY	T_REVENUE
1	vitamins	22.98
2	food	6.88
3	sports	12.49

Worksheet Query Builder

34
35 Q6. What is the average price of products in the 'food' category?
36
37 `SELECT CATEGORY,AVG(PRICE) FROM PRODUCTS WHERE CATEGORY = 'food' GROUP BY CATEGORY;`
38

Script Output x Query Result x

SQL | All Rows Fetched: 1 in 0.021 seconds

	CATEGORY	AVG(PRICE)
1	food	3.44

Worksheet Query Builder

38
39 Q7. How many orders were made in each sales channel (sales_channel column) in the orders table?
40
41 `SELECT sales_channel, COUNT(*) AS order_count FROM orders GROUP BY sales_channel;`
42

Script Output x Query Result x

SQL | All Rows Fetched: 2 in 0.004 seconds

	SALES_CHANNEL	ORDER_COUNT
1	retail	5
2	online	3

Worksheet Query Builder

42
43 Q8.What is the date of the latest order made by a customer who can receive marketing emails?
44
45 `SELECT MAX(o.date_shop) AS latest_order_date`
46 `FROM orders o`
47 `JOIN customers c ON o.customer_id = c.customer_id`
48 `WHERE c.can_email = 'yes';`

Script Output x Query Result x

SQL | All Rows Fetched: 1 in 0.003 seconds

	LATEST_ORDER_DATE
1	02-FEB-23

Worksheet Query Builder

77 Q9. What is the name of the country with the highest number of orders?

78

79 SELECT *

80 FROM (

81 SELECT

82 c.country_name,

83 COUNT(o.order_id) AS order_count

84 FROM

85 country c

86 JOIN

87 orders o ON c.country_id = o.country_id

88 GROUP BY

89 c.country_name

90 ORDER BY

91 order_count DESC

92)

93 WHERE ROWNUM = 1;

Script Output x Query Result x

SQL | All Rows Fetched: 1 in 0.004 seconds

	COUNTRY_NAME	ORDER_COUNT
1	UK	5

Worksheet Query Builder

105

106 Q10. What is the average age of customers who made orders in the 'vitamins' product category?

107

108 SELECT AVG(c.age) AS average_age

109 FROM customers c

110 JOIN orders o ON c.customer_id = o.customer_id

111 WHERE EXISTS (

112 SELECT 1

113 FROM baskets b

114 JOIN products p ON b.product_id = p.product_id

115 WHERE o.order_id = b.order_id AND p.category = 'vitamins'

116);

117

Script Output x Query Result x

SQL | All Rows Fetched: 1 in 0.017 seconds

	AVERAGE_AGE
1	30.6